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OFFICE OF THE
REGIONAL ADMINISTRATOR

September 14, 2015

Chief, Rules, Announcements and Directives Branch
Division of Administrative Services
Office of Administration
Mail Stop TWB-05-B01M
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 46 Regarding Seabrook Station, Final Report for Comment, CEQ #20150219

Dear Sir/Madam:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the United States Environmental Protection Agency (EPA) has reviewed the Nuclear Regulatory Commission's (NRC's) Final Supplemental Environmental Impact Statement (FSEIS) for the potential relicensing of the Seabrook Station Nuclear Power Station (Seabrook or Seabrook Station) in Seabrook, New Hampshire. The NRC has issued the FSEIS for public comment in support of its decision on the application submitted by NextEra Energy Seabrook, LLC (NextEra) for relicensing Seabrook under the Atomic Energy Act. As described in the FSEIS, NextEra has applied to the NRC for renewal of Seabrook's operating license for an additional 20 years. Seabrook began commercial operation in 1990 and its existing license will expire in 2030. Seabrook's net electrical capacity is 1,245 megawatts-electric (MWe) and it is located approximately two miles west of the shore of the Atlantic Ocean.

As we noted in our comments on the Draft SEIS the potential relicensing of the facility raises a number of environmental issues to be considered including matters related specifically to nuclear power generation, such as public safety, the potential for radionuclide emissions to the environment (i.e., to the air, surface water, groundwater or land), the management of radioactive waste, plant security, and emergency management. Our comments also noted other environmental issues common to fossil fuel power plants that need to be considered such as the effects of the facility's open-cycle cooling system intake and discharge on the environment.[1]

[1] EPA continues to recognize that pollutant discharges and withdrawals of ocean water for cooling at Seabrook are regulated under the National Pollutant Discharge Elimination System (NPDES) permit issued by EPA to the facility. NextEra has submitted an application to EPA for renewal of the NPDES permit. As we stated in our comments on the DSEIS, the comments in this letter are based solely on a review of the information in the FSEIS from the standpoint of what is required by NEPA and are not intended to address the requirements of the Clean Water Act NPDES permit. EPA will address those requirements when it takes action on Seabrook's NPDES permit renewal application.

Our detailed comments on the DSEIS recommended that the FSEIS contain additional information to more fully describe the impacts of Seabrook including a more complete consideration of alternative plant cooling system scenarios for the relicensing period and also address other operational impacts, including the entrainment and impingement of fish and other aquatic organisms, and releases of tritium to groundwater. Our follow-up comments to information provided in the FSEIS on those issues are included in the attachment to this letter. We appreciate the response provided to our DSEIS comments regarding the timing of the SEIS development and the relicensing process.

Please feel free to contact Timothy Timmermann of the Office of Environmental Review at 617/918-1025 if you wish to discuss these comments further.

Sincerely,

H. Curtis Spalding
Regional Administrator

Attachment

Detailed Comments
Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 46 Regarding Seabrook Station
Final Report for Comment

Cooling Water Withdrawal and Discharge

As indicated in EPA's DSEIS comments, Seabrook Station's operations raise water quality and aquatic habitat issues associated with the withdrawal and discharge of water from surface waters. EPA's previous comments noted that the impacts to winter flounder and rainbow smelt should be characterized as large. In NRC's response 014-3 to EPA's comment, NRC has characterized the impact to winter flounder and rainbow smelt as large. EPA also commented that the impact to silver hake should be increased to moderate. NRC did not take this recommendation and provided a rationale for this decision in Response 014-3. EPA's comments also recommended a more complete consideration of alternative plant cooling system scenarios for the relicensing period and addressing other operational impacts, including the entrainment and impingement of fish and other aquatic organisms. As indicated in the NRC Response 014-2 in Appendix A, the FSEIS included an expanded consideration of a closed cycle cooling alternative. The discussion also notes that Variable Speed Drive technology would be viable at Seabrook and could help to reduce entrainment and impingement impacts during operation. EPA continues to support measures to reduce entrainment and impingement impacts. [2]

National Pollutant Discharge Elimination System

Pollutant discharges and withdrawals of ocean water for cooling at Seabrook are regulated under the National Pollutant Discharge Elimination System (NPDES) permit issued by EPA to the facility. Seabrook's current 2002 NPDES permit has been administratively continued since its April 4, 2007 expiration date. It is our understanding that conclusions presented in the FSEIS are based on NRC's statutory mandate, assessment, process, and standards applied in the relicensing and NEPA processes and are not intended to address the requirements of the Clean Water Act (CWA) NPDES permit. The NPDES process, while examining similar aquatic habitat impacts and mitigating technologies will be addressed when actions are taken on the re-issuance of Seabrook's NPDES permit and based on the application NPDES regulations pursuant to Section 402 and 316(b) of the CWA.

With regard to the NPDES permitting process, the NPDES requirements for Seabrook have recently changed, including new NPDES application requirements for facilities such as Seabrook. Specifically, on April 20, 2011, EPA proposed new regulations setting categorical standards applying CWA § 316(b) to Cooling Water Intake Structures (CWISs) at existing power plants and manufacturers, and new units at existing facilities. 76 Fed. Reg. 22174-22288 (April 20, 2011). On August 14, 2014, EPA promulgated new final regulations at 40 C.F.R. Part 125, Subpart J, setting categorical BTA standards for existing facilities with CWISs with design intake flows greater than 2 MGD and which use 25% or more of the intake water for cooling purposes. Seabrook satisfies these criteria and the new regulations apply to this facility. *See* 79

[2] We note that our comments on the DSEIS called for an expanded discussion of the magnitude of the entrainment and impingement losses. The FSEIS indicates that a response to this issue is provided in Section 4.5.4; however we were not able to locate this Section in the FSEIS.

Fed. Reg. 48300-48439 (Aug. 15, 2014) ("Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities; Final Rule") (the "New CWA § 316(b) Regulations"). The new regulations became effective on October 14, 2014. *See* 79 Fed. Reg. 48300, 48358.

Groundwater Contamination Monitoring and Reporting

The FSEIS characterizes previous EPA comments as "...about the availability of information on groundwater contamination relative to Seabrook and its adequacy, the need for license conditions related to groundwater monitoring and reporting, and implementation of NRC's Groundwater Task Force Final Report." While this is partially true, it overlooks the main emphasis of our comments that information on groundwater contamination at Seabrook should be easily accessible. In addition, the FSEIS does not address how the NRC plans to take steps to improve transparency on how it deals with groundwater contamination issues. Instead the FSEIS refers to a number of external citations to explain why it believes current practices are adequate. We reiterate our position that information related to groundwater tritium contamination should be easily accessible by the public. EPA finds that the current practices of communicating groundwater issues at Seabrook (including the reliance on annual radioactive effluent release reports as the means to communicate this information) are difficult to understand and inadequate for scientific evaluation of groundwater management practices.

In addition, the FSEIS does not address EPA's comment regarding groundwater sampling for other contaminants of concern. Instead, the FSEIS notes that many of the NRC groundwater initiatives are conducted under voluntary programs that are not subject to regulatory oversight. Consistent with our comments above on transparency and accessibility of data, we continue to strongly recommend that the NRC take a proactive approach to addressing and preventing groundwater contamination. Adding additional groundwater sampling for contaminants of concern, as part of a hydrogeological assessment, should be addressed by NRC.

Future Consideration of Decommissioning Impacts

EPA did not comment on potential decommissioning issues in response to the DSEIS; however we have been involved in the decommissioning and cleanup of several nuclear power plants in New England and we believe our experience at those facilities is informative for the future decommissioning work at Seabrook. Some of the cleanups were related to the initial construction of the plant and the improper disposal of construction debris and waste (contaminants included spills of PCB transformer oils, hydraulic fluids, PAHs, boron, manganese, strontium, PCBs in paint, and PCBs in cables). Other cleanup work was focused on improperly stored conditioning chemicals used in plant operations, lead paint and other solvents related to painting or machining, tritium leaks, and PCBs. We note that the Toxic Substance Control Act (TSCA) is currently going through rulemaking which may call for the removal of PCBs in enclosed uses. If Seabrook has PCBs in cables, paint, transformers, capacitors, or other uses they may need to be removed in the future based on these changes.